

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Brash, Kenneth George	)	Title: Fumigation Apparatus
	)	
Serial No.: 09/980,676	)	Group Art Unit: 3643
	)	
Filed: May 9, 2002	)	Examiner: John D. Holman

DECLARATION UNDER 37 CFR 1.132

Kenneth George Brash states:

1) I am the inventor for US patent application serial no. 09/980,676 and am a director of Nordiko Pty Ltd ("Nordiko"). Nordiko's parent company is Asiaworld Shipping Services Pty Ltd ("Asiaworld" being the assignee of US serial no. 09/980,676; with Nordiko being the licensee of US serial no. 09/980,676). Nordiko is an Australian company whose Internet address is <http://www.nordiko.com.au/>.

2) I have worked in the field of entomology for more than 30 years and in the field of fumigation for more than 10 years. I have the following qualifications:

- High School Teaching Diploma in General Science
- BSc Zoology (Entomology)
- AIM Diploma in Marketing
- Urban and Rural Fumigation Certificate
- Smartrain – Chemical Application Certificate
- Fumigation License

3) I am a Scientific Member of the Royal Zoological Society of NSW, a member of the Australian Entomological Society, a professional body affiliated to CSIRO (Commonwealth Scientific & Industrial Research Organisation) Entomology and a member of the Society for Insect Studies. I have been asked to present papers at various scientific based conferences, such as the MBAO (Methyl Bromide Alternatives Outreach) in the US, the OEWG (Open Ended Working Group) meeting of the Parties to the Montreal Protocol, the CSIRO Grains Conference, the CSIRO Timber Forum and several others. I have worked with Dr Yonglin Ren, CSIRO, on an experiment into the Methyl Bromide Penetration into Timber Blocks and Sorption and Desorption of Methyl Bromide on Timber Blocks, which although not published yet, is available for study.

4) In the course of that work, I have become very familiar with international fumigation processes and practices. I observe that Nordiko is a recognised world leader in the field of fumigation and has developed a range of apparatus and processes that now find widespread commercial use in Australia, USA, Europe, Chile etc and that are both cost effective and environmentally safe. Further details on Nordiko's activities can be found at its Internet website (*ibid.*).

5) During my time working in the field of entomology and fumigation I have developed considerable knowledge of the various processes, apparatus and practices for fumigating, inter alia, produce in containers, and especially in ISO general purpose shipping containers. For example, I am fully aware of the process and apparatus differences between fixed fumigation installations as opposed to Nordiko's world's best highly mobile and portable apparatus and practices. As a result of my international reputation in entomology and my position and experience in Nordiko, and as a result of Nordiko's dealings with many of the world's largest shipping and produce companies, I have been compelled to become extremely knowledgeable about all aspects of fumigation. In addition, to remain as knowledgeable as possible about developments in this field, I regularly attend international technical conferences and meetings, I subscribe to various journals, and I have and receive regular communications with and from companies operating in the fumigation field. By way of example, this year I will be attending the MBO Conference (<http://mbao.org/>) in late October 08 in Orlando, Florida. Further, Nordiko's technical expertise is used to support the operations of such shipping and produce companies, so that I have as good an up-to-date working knowledge as possible of the industry and the various fumigation processes, apparatus and practices in current use.

6) I am fully aware of the process outlined in US patent No. 6,047,497 ("the Smithyman patent") and US patent No. 5,904,909 ("the Yates patent"). In fact Nordiko's parent company Asiaworld is the licensee of the Yates patent. I am able to fully comment on the Smithyman and Yates patents. In this regard, I have been fully involved with the ongoing examination of the present US patent application serial no. 09/980,676.

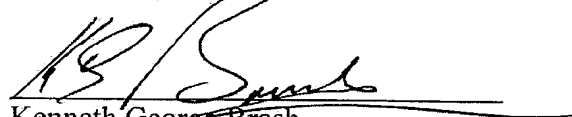
7) I note that the Smithyman patent relates to a gas fumigation method and system for fumigating a region with a non-flammable gaseous mixture containing phosphine. Phosphine is a highly explosive gas and the Smithyman patent is thus concerned with the development of a method and system which reduce the risk of phosphine ignition and explosion. To do this, Smithyman has conceived of a fixed installation which describes a method of making the present use of phosphine safer. As described in the body of the Smithyman patent, phosphine is a fumigant gas widely used for stored products, which generates the gas from metal phosphides, such as aluminium or magnesium, usually in the form of tablets, pellets or blankets. When exposed to moisture phosphine gas is released. However, the release of this gas is also dependant on temperature and time. It is not usual to use these metallic phosphides at temperatures lower than 40°F, and release is slow, taking 2 to 8 days to generate the required dosage. Once released the gas is highly volatile and subject to auto-ignition and explosion. Smithyman has addressed this problem by designing a fixed non-mobile installation incorporating complex pipework and flow configurations to inject an inert gas into a phosphine fumigation to stabilize the phosphine gas to minimize the risk of explosion. There are many phosphine generators on the market that do the same thing, with some using cylinderized phosphine and some using metallic phosphides, mixing carbon dioxide with the gas prior to injection into the fumigation enclosure. There is nothing whatsoever in the disclosure of the Smithyman patent to suggest the method and system are portable, or could be made portable. In fact the contrary is taught in that the mixture of the gas, including the inert gas in one embodiment, is prepared at a fixed facility and then transported to the fumigation site for use. In another embodiment the gas mixing plant is set up on site as a phosphine generator. In other words the Smithyman invention is for the production of a fumigant gas mixture and does not include any teaching of a method or application involving the fumigation of containers or any other enclosure, whereby the fumigant is injected through the apparatus, mixed within the enclosure and at the end of the

period of fumigation, extracted from the container or enclosure, recapturing the gas to prevent release to the atmosphere and the workplace.

8) On the other hand the invention of US patent application serial no. 09/980,676 relates to a mobile fumigation means. This enables the apparatus to be employed with ISO general purpose shipping containers. In a fumigation process that is typically implemented at eg. a port, many such shipping containers containing potentially infested produce require fumigation at the same time, often at diverse locations, and it is simply impractical to construct permanent installations wherever fumigation is required. It is also impractical to use phosphine at these locations due to the length of time required for exposure, as this would cause congestion at ports and depots. There is thus no reason why a person of ordinary skill in the field of fumigation would consider the Smithyman reference of relevance to mobile fumigation. Such a person would, for the reasons outlined above, not consider the Smithyman reference at all when designing a means for mobile fumigation.

The undersigned acknowledges that willful false statements and the like are punishable by fine or imprisonment, or both (18 U.S.C. 1001), and may jeopardize the validity of the application or any patent issuing thereon. The undersigned swears that all statements made in this declaration of his own knowledge are true, and that all statements made on information and belief are believed to be true.

Respectfully submitted,



Kenneth George Brash

Date: March 28, 2008